



Yellow Migrant (Catopsilia gorgophone)
on *Senna gaudichaudii*

Butterfly &
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CLUB PLANNING AND ORGANIZING GROUP - 2003

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PLANNING AND ORGANIZATION MEETINGS

A quarterly meeting is scheduled in order to plan club activities and the newsletter.
See BOIC Programme.

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AIMS OF ORGANIZATION

- To establish a network of people growing butterfly host plants;
- To hold information meetings about invertebrates;
- To organize excursions around the theme of invertebrates e.g. butterflies, fireflies, ants, dragonflies, beetles, freshwater habitats, and others;
- To promote the conservation of the invertebrate habitat;
- To promote the keeping of invertebrates as alternative pets;
- To promote research into invertebrates;
- To encourage the construction of invertebrate friendly habitats in urban areas.

NEWSLETTER DEADLINES

If you want to submit an item for publication the following deadlines apply:

March issue – February 21st

June issue – May 21st

September issue – August 21st

December issue – November 21st

COVER DRAWING

Yellow Migrant (*Catopsilia gorgophone*), adult females, larvae and pupa on *Senna gaudichaudii* (previously *Senna surattensis* subspecies *retusa*) - drawing by Lois Hughes



PRESIDENT'S POSTING

Welcome to our 30th issue. Thanks to all our contributors.

Our website: <http://cwpp.slq.qld.gov.au/butterfly> has been doing us proud. We are getting roughly 5 queries and interesting pieces of information per month. Thanks go to Daphne Bowden for maintaining and updating this site.

With our membership directory and the website, Daphne has been able to do some useful linking and networking of people with a shared interest. In one case we received a request from a teacher and amateur lepidopterist in Rockhampton. He wanted to make contact with local members, and was linked to the nearest in our directory, one in Landsborough and the other in Townsville. Thanks to email this has worked out and they have been sharing information.

So that this type of networking can work even more effectively in the future, we'd like to invite you to become listed in the 2nd edition of the directory now being updated. The form is included with this newsletter. We thank those members who have previously listed their names in the directory. We hope that, with time and enough members in a locality, we'd be able to have our members meeting each other for local get-togethers.

Helen Schwencke

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CREATURE FEATURE

Notes on a **Yellow Migrant (*Catopsilia gorgophone*)** population at Brisbane

I have a resident population of *Catopsilia gorgophone* which has been in my Brisbane yard for at least ten years. I use a combination of *Senna surattensis* (exotic subspecies), *S. retusa* (local) and *Senna (Cassia) auriculata* (exotic) as the foodplants. This combination of foodplants seems to provide sufficient fresh growth during breeding times for the colony to survive. In the wild *S. retusa* fulfills this need if sufficient numbers of plants are present over an area as I have found that even during June/July *S. retusa* will produce some fresh shoots for oviposition to occur. In areas near Ipswich where *C. gorgophone* occurs one or two adults are always found in the vicinity of the *S. retusa* bushes.



Larva of Yellow Migrant

C. gorgophone does not exhibit total migratory behaviour since even during the main population build-ups during October/November and then again in March many butterflies will stay in the area rather than dispersing. This is in contrast to the White Migrant (*C. pyranthe*), which will arrive in my yard, breed up in huge numbers and then completely disperse looking for further breeding areas.

The butterflies are present in my yard during all months of the year with fresh adults appearing from September through until May. During the winter months the adults appear during the warmer times of the day and in early morning can be seen sitting on leaves in the sun in a horizontal fashion presumably to maximise wing exposure to the sun and hence warm up. During the night or on overcast days they roost under leaves, often selecting the same shrubs in which to seek protection. Nectar is a particular problem during winter months, however I have found that Poinsettia flowers at this time of year and provides a good source of nectar. This is probably a critical factor as the adults would otherwise be forced to disperse leaving the continuation of the colony dependent upon the over-wintering larva.

The main threat to the colony appears to come from strong southerly/westerly winds which occur in Brisbane during July/August and can disperse the adults. They need a sheltered area for protection from these winds.

The early stages can be found during all months of the year although the favoured times for emergence of adults have already been mentioned. During winter larvae can be found and egg-laying does occur, however development is very slow and the mortality rate is high particularly with pupae due to a combination of cold and dryness. During the summer months the early stages have different problems as the eggs and larvae are heavily attacked by spiders, wasps (paper and parasitic), parasitic flies and birds (which also eat pupae).



Egg laying occurs on either fresh shoots or on flower buds. During winter both *S. auriculata* and *S. retusa* will provide limited fresh shoots if plants are in a suitably warm spot. From August onwards, fresh shoots become available and the winter surviving adults begin breeding more successfully. These weathered adults die off by September and are replaced by those of the winter larval generation which have survived. Eggs laid in spring usually emerge as butterflies by October/November and is the start of the main summer generation.

The summer of 02/03 was extremely dry with only a small population of adults flying. These adults laid only few eggs on the foodplants despite fresh shoots being available, however almost all of these eggs perished due to the dryness. Once rain had occurred (February) egg mortality dropped and a huge population explosion occurred due to the low numbers of parasites and predators. Once this population in turn began breeding then predators and parasites had become established and produced high mortality rates in the early stages.

The white form (form *hinda*) also appears annually in the population reaching approximately 20% of new emergences. This is in contrast to the situation for the Lemon Migrant (*C. pomona*), where most of the population change into the alternate form. Form *hinda* appears from March onwards until May after which time very few adults emerge of either form. It could probably be best described as an Autumn form, the life cycle is usually completed when temperatures are still high and rainfall can be potentially either high or low during this time of year so it is not a true dry/wet season form. Possibly shortening daylight hours as mentioned by Rienks (1985) may have an effect. Rarely a specimen of form *hinda* will appear in the spring hatching, however in most years form *hinda* disappears after winter. Females can be seen laying eggs, however the offspring are presumably the normal form (I have not collected eggs and raised them through, however the absence of form *hinda* adults flying in the next generation indicates that they revert to the normal form).

Reference: Rienks (1985) Phenotypic response to photoperiod and temperature in a tropical Pierid butterfly. Aust. J. Zool., 33:837-847.

Dennis Bell

PLANT PROFILE

The Confusing Host Plants of the Yellow Migrant (*Catopsilia gorgophone*)

There is still debate on whether the Yellow Migrant (*C. gorgophone*) and the Orange Migrant (*C. scylla*) are one or two species – their male genitalia, life histories and host plants appear to be identical. The jury is still out on this, but modern protein analyses and genetic comparisons will no doubt throw more light on the subject.



Just as intriguing is the history of and current botanical placement of their host plants. For simplicity I'll confine my further comments to the host plants listed for the Yellow Migrant, all *Senna* species in the family Caesalpinaceae.

A paper by Rowland Illidge in 1898 noted *C. gorgophone* utilizing *Cassia glauca* as host plant. This record was repeated by G.A. Waterhouse in 1932 and Alex Burns in 1946. *C. glauca* is what we now know as *Senna surattensis* and this latter is the name used by Common and Waterhouse (as "*Cassia surattensis*") in the first edition (1972) of their classic "Butterflies of Australia". In the 1981 edition they added Dennis Bell's record of the exotic *Cassia* (now *Senna*) *auriculata* (see his paper in this issue).

Kelvyn Dunn (1995), and others, have shown that J. Manski's 1960 listings of *Cassia brewsteri* and *C. fistula* for the Yellow Migrant are erroneous. They are host plants of *C. pomona* the Lemon Migrant. These listings probably came about because of the similarity of the two butterfly species. Michael Braby (2000) listed *S. surattensis*, *S. auriculata* (tentatively!) and added one other host plant in the CSIRO milestone "Butterflies of Australia" two volume publication. The third species as reported by Graham Wood (at Wondecla) and Garry Sankowsky (at Tolga), is *Cassia retusa*, more recently known as *Senna surattensis* subspecies *retusa*, as recorded from the Atherton Tableland.

There has been debate on whether *Senna surattensis* is endemic or exotic. There is no doubt that a native species (or local form) occurs in eastern Queensland, and probably is the taxon for the earlier *C. glauca* records. However, there is good anecdotal evidence (D. Bell pers. comm.) that the plant was also brought to Australia from Penang, Malaysia (where it is known as "Singapore Shower"), and this exotic form is grown by a few butterfly enthusiasts. G. Sankowsky, in his 2002 CD-ROM, states that this exotic form, which "forms large clumps and has a suckering habit", has become naturalized in south-east Queensland around Beaudesert and Boonah. (This has not been recently confirmed.) Garry adds that this form "has very broad, rounded leaflets and a stiff upright habit, only weeping at the top." Dennis also adds that this form has straighter seed pods (than *S. retusa*), smoother leaves and a tendency to suffer from rust infestation.

More commonly grown by butterfly enthusiasts (especially in Brisbane) is *Senna retusa* (or *S. surattensis* subspecies *retusa*) which according to Garry "is a weeping, or sometimes, climbing shrub, that occurs in dry rainforest and vine thicket patches" across northern Australia "southwards to south-east Queensland, and into northern NSW". He adds "It is a very hardy plant which is sometimes available from native plant nurseries." Dennis (whose specimens are from the Ipswich area) comments that the seed pods are slightly more curved than *S. surattensis* and the mature leaves are often yellowish-green and hairy.



Ross Kendall also has had experience with *S. retusa*. Ross' large front garden specimen (in a sunny position), originally from Fairhill Nursery, has climbed 5 or 6 metres towards the roof of his two storeyed home in a relatively short time, and most months of the year is alive with adult *C. gorgophone*.

Senna retusa has since been reassigned to the Pacific Is. species *S. gaudichaudii* and appears as such both in the Flora of Australia (1998) and in the latest (2002) Queensland Herbarium census. However, our colleague (and very competent amateur botanist) Garry Sankowsky considers that his *S. retusa* is quite different from the overseas *gaudichaudii*.

To further complicate matters the Flora shows that the Australian *Senna surattensis* has been further split into two varieties: *Senna surattensis* subsp. *surattensis* and *S. surattensis* subsp. *sulfurea*, both of which occur in south-east Queensland! The census lists them as separate species, namely *S. surattensis* and *S. sulfurea*. Frank Jordan has a specimen of *Senna surattensis* subsp. *surattensis* in his garden originally from material collected at the Goodnight Scrub west of Bundaberg. It has flowered profusely with wild *C. gorgophone* breeding freely on it. Frank tells this story in more detail in BOIC Newsletter No. 16, March 2000.

Recently (25 May 2003) Glenn Leiper, Peter Hendry and the writer found a final instar larva of *C. gorgophone* on *Senna acclinis* on Mt. Stradbroke in the Marburg/Minden range north-east of Gatton. The identity of this rare plant was confirmed by the Queensland Herbarium. The larva subsequently pupated and emerged as a normal-sized healthy adult. This is a new host plant record for this butterfly.

S. acclinis has been recorded by Helen Schwencke and Frank Jordan as a host plant for the Small Grass-yellow (*Eurema smilax*), as noted in Braby (2000) and BOIC host plant booklet. This plant in their West End (Brisbane) garden has recently been visited by *C. gorgophone* and Frank reports them breeding successfully on it. See also *S. acclinis* plant profile this issue.

Randell (2000) in Australian Plants gives short, helpful descriptions of the above taxa, with illustrations. This clarifies the situation considerably and it is recommended that the reader consults this reference. Also, I should recommend Garry Sankowsky's informative CD-ROM "A Garden on the Wing – Attracting birds and butterflies to your garden" which has excellent colour illustrations of three of the above *Sennas* plus another North Queensland species.

2003 certainly has been a bumper year for the Yellow Migrant in Brisbane, with nearly a dozen members noting it in their gardens and many reporting local breeding. I would like to thank the Queensland Herbarium staff for plant identifications and my colleagues mentioned above for their assistance in compiling this information.

John Moss



Selected references:

1. Burns, A.N. 1946. Notes on the butterfly, *Catopsilia scylla gorgophone*, form *hinda* Butler. Memoirs of the National Museum of Victoria 13:131-132.
2. Dunn, K.L. 1995. Notes on the biology of *Catopsilia gorgophone* (Boisduval). Victorian Entomologist 25(6):106-116.
3. Illidge, R, 1898. List of butterflies of the Brisbane district. Proceedings of the Royal Society of Qld. 13:89-102
4. Randell, B.R. 2000. Cassia and Senna – Part D: *Senna*-Shrubs with shiny seeds. In Australian Plants Vol. 20(162):247-248
5. Randell, B.R. and Barlow, B.A. 1998. Sect. 11 *Senna*. In Flora of Australia. Mimosaceae (ex-*Acacia*) and Caesalpiniaceae. 12:89-137. CSIRO, Melb.
6. Waterhouse, G.A. 1932. What Butterfly is That? Angus and Robertson, Sydney

Senna auriculata

Description - This is a large shrub which can reach 6 metres high and 4 metres in width. It has large compound leaves (20-25cm long) with 5-6 pairs of leaflets each 5-8 cm long and produces masses of yellow flowers in late summer/autumn. It is a distinctly different plant to the other Yellow Migrant (*Catopsilia gorgophone*) host plants *Senna retusa* and *S. surattensis*.

It is a native of India but is grown in Australia to a limited extent in home gardens mainly by butterfly enthusiasts.

Horticultural Notes - It is easily grown from seed, is reasonably tolerant of soil conditions and can tolerate semi-shade.

Butterfly Hosts - I grow this plant in my yard as the main host plant for the Yellow Migrant. It is also used by the Common or Large Grass-yellow (*Eurema hecabe*), Small Grass-yellow (*Eurema smilax*) (usually young plants or low branches under the main bush), and the Common Pencilled-blue (*Candalides absimilis*) (fresh shoots and flower buds).



Senna auriculata

One or two of these plants will provide a permanent colony of Yellow Migrants throughout the year (in Brisbane), however *Eurema* and *Candalides* seem to be more sporadic on the plant.

Of the three host plants, *S. auriculata* is probably the best for maintaining a colony of Yellow Migrants (on horticultural grounds). *S. surattensis* seems to be prone to developing rust which inhibits the plants' growth while *S. retusa* (at least the local



S.E. Qld. form) is an untidy bush which can be slow to grow if not given good conditions. The butterfly seems to have no preference between the three plants for ovipositing although new growth is always preferred.

The only disadvantage to *S. auriculata* is that it does stop growing during the winter months (in Brisbane) but the Yellow Migrants seem to be able to survive on what young leaves are available. *S. retusa* has the advantage here that it continues to grow almost throughout the year and provides a lot of new growth very early in spring.

Dennis Bell

Dennis has seeds of *Senna auriculata* available. If you wish to take advantage of this offer, send a stamped self-addressed envelope to Dennis Bell, 14 Parnoo St., Mitchelton, Qld. 4053.

Daphne has seeds of *S. surattensis* subspecies *retusa* (now *S. gaudichaudii*) available if you wish to send a stamped self-addressed envelope to Daphne Bowden, 24 Rickston Street, Manly West, Qld. 4179.

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Senna acclinis (F. Muell.) Randell
McDonald

Drawing by Graham

Text by Graham McDonald

FAMILY: Caesalpinaceae

DERIVATION: *Senna*: from the Arabic 'sana', used for species that have purgative and laxative components in leaves and pods;
acclinis: meaning straight, possibly referring to the seed pods.

COMMON NAME: None

PRONUNCIATION: sen-A a-KLY-nus

Senna acclinis is a rare shrub growing to about 2 metres tall and 0.5 metres wide. It is sparsely branched with leaves in clusters towards the ends of the branchlets. The leaves are pinnate usually with 5 – 6 pairs of leaflets. There are small glands (1.5mm long) located between the first and second, and occasionally between the third pair of leaflets. Leaflets are elliptic to oblong-elliptic measuring 1 – 2.5 cm x 0.5 – 1.2 cm. They are dark green and glabrous on the upper surface and pale green and glaucous below.

Inflorescences are terminal panicles of yellow flowers resembling (superficially) those of the Easter Cassia (*Senna pendula* var. *glabrata*), but they are a paler yellow. These shrubs flower most of the year. Pods are narrow flattened and brown about 12 – 15 cm

x 0.5cm containing up to 30 seeds separated by nearly transverse septa. They are

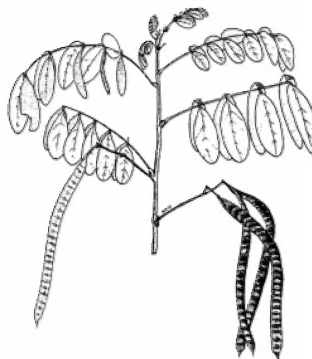


drawn out into a short sharp point. Seeds are hard, shiny, dark brown and rhombic in shape, measuring 4mm x 3 mm.

Senna acclinis occurs in dry rainforest types (dry vine scrubs) and is widely scattered from west of Mackay through the eastern parts of south-east Queensland into

New South Wales. It is classified as 'Rare' under the 1992 Nature Conservation Act.

This shrub is easily propagated from scarified seeds and is an extremely hardy long-lived species. It does require good light for best performance. For the best flowering display, several plants should be group planted. Watering is usually not required.



Senna acclinis

REPORTS

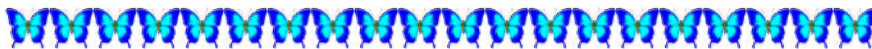
Slide and Exhibit Evening - June 26, 2003

A small number of "the faithful" gathered at the Redlands IndigiScapes Centre on this mild winter evening (following a day of rain) to see John Moss' colour transparencies of butterflies and host plants and members' plant and insect specimens.

John introduced his talk with slides of several Jezebel (*Delias*) and Azure (*Ogyris*) butterflies which feed exclusively on mistletoe species. As well as adult butterflies, there were slides of eggs, egg laying in progress, larvae of sequential instars and pupae of two of the Jezebel species. This was followed by slides of most of the local (SEQ) mistletoe host plants including flowering and fruiting specimens and images of the trees which host the mistletoes. He pointed out that trees which are heavily laden with mistletoe are not necessarily significantly disadvantaged, in so far as the mistletoe is actually a hemi-parasite, which does contribute carbohydrates and other substances back to the host-tree in return for the water and solutes utilized. Other factors contribute to the demise of such trees.

We then were treated to slides of several sawsedges (*Gahnia* species) the host plants of several skippers and the "Swordgrass Brown" butterfly (*Tisiphone abeona*), which latter is the subject of a club translocation project. Two striking subspecies of this butterfly were illustrated – the dark chocolate brown and creamy-white *morrissi* subspecies occurring from Kempsey north to the Gold Coast and the brown and orange *aurelia* subspecies from the NSW central coast.

John then showed slides of several shelters of Regent Skipper larvae on *Wilkiea macrophylla* and *W. huegeliana* which were the feature subjects and cover illustration of our last newsletter. He also had brought along, as exhibits, several potted *Wilkieas*



hosting shelters of the Skipper with larvae in situ, plus a few mistletoes, as a practical illustration of his talk.

Frank Jordan and Peter Hendry also provided exhibits, mainly of host plants they had grown from seed, which they provided free for members to take home to augment their butterfly gardens.

The gathering was also treated to the sight of two new butterfly larval host plant records. Peter had advanced Tailed Emperor (*Polyuria sempronius*) larvae on Black Booyong (*Argyrodendron actinophyllum*) from his rainforest garden. He had previously found larvae of the Common Aeroplane (*Phaedyra shepherdii*) on this tree, which had gone through to emerge as adults.

John showed us the pupa of a Yellow Migrant (*Catopsilia gorgophone*) recently found as a larva on the rare shrub *Senna acclinis*, at Mt. Stradbroke in the Marburg/Minden Range west of Brisbane. The adult butterfly has subsequently successfully emerged. Previously this plant had only been known to host the Small Grass-yellow (*Eurema smilax*) (pers. rec. F. Jordan). (These and other new host plant records will be consolidated into a forthcoming revised edition of the club's host plant booklet. Ed.)

As usual, our unofficial club "caterer" Daphne, provided a sumptuous supper including fresh scones with whipped cream and strawberry jam!

We look forward to the August meeting when Mike Barnett has promised us an entertaining talk on his African travels and the butterflies he encountered.

John Moss

S.G.A.P. Wildflower Spectacular – 8th and 9th August, 2003

With some uncertainty, we arrived at the new venue for the "Wildflower Spectacular" not really knowing what to expect because of the reduced space at the Mt. Coot-tha Auditorium and the much earlier date of the event. We were delighted with what we found and had a very successful time, catching up with old and new friends alike and spreading the word amongst the already converted (to conservation and preservation and the growing of Australian native plants). The wildflowers were indeed spectacular. A *Pimelia* from Western Australia stopped me in my tracks and Frank has kindly loaned me his plant to paint. It has huge green bells tinged with maroon – irresistible! Classical music soothed us gently and videos educated us about our versatile Australian plants, as we sat amongst a forest of plants. A very enjoyable time was experienced by us all. I'm looking forward to next year

Lois Hughes



Combined Clubs' Excursion 13th August, 2003 to Maroochy Bushland Botanic Gardens

The morning temperature was around 15 deg. and there wasn't a cloud in the sky when we all arrived at the Maroochy Gardens. The Queensland Naturalists Club and the Wildlife Preservation Society, Caloundra branch members, were already gathered, discussing the things that we normally discuss before embarking on our days of discoveries.

Starting from the car park, we slowly made our way into the gardens, picking up the track guide from the main entrance as we passed.

One of the first things of interest that we all noticed, was a white flowering form of *Hardenbergia violacea*. Normally producing purple flowers, this is a recognized larval food plant for *Zizina labradus* (Common Grass-blue).

As we moved further into the park, we noticed an *Acacia melanoxylon* festooned with mistletoes. Upon closer inspection, we recognized the majority of the mistletoe to be *Amyema congener*, a mistletoe that is known to support at least seven butterfly life cycles, although on the day, we only found eggs and larvae of *Delias nigrina* (Black Jezebel). Also using this mistletoe as a host, is another mistletoe, *Viscum articulatum*. This one is not a recognized food plant for butterflies.

Slightly further on we noticed on the ground, the distinct orange flowers of the mistletoe *Dendrophthoe vitellina*. We stood back and looked up into a fairly large eucalypt, and there they were, two quite large examples of the mistletoe in full flower. Whilst looking at the mistletoe, which by the way is known to support at least fifteen butterflies, we noticed a medium sized blue butterfly ovipositing on its leaves. Upon it landing in a suitable position for easy identification, we all agreed that it was *Candalides margarita* (Trident Pencilled-blue).

We were very fortunate on the day to have with us, Andrew Atkins, the person who is considered to be Australia's leading authority on the butterfly family Hesperidae (Skippers, Flats, Awls and Darts). It wasn't long before we were all amazed at the number of Hesperidae larvae that were all around us, but that we were completely oblivious to. Those club members that weren't on this excursion, certainly missed out on a very enlightening experience to say the least and our sincere thanks goes out to Andrew. We would be honoured to have you on more of our excursions. I for one wouldn't miss out on any of them.

As we descended into the first gully, we noticed a medium sized *Wilkea macrophylla* supporting two larvae of *Euschemon rafflesia* (Regent Skipper). We searched the gully a little bit longer, looking for the Richmond Birdwing Vine (*Pararistolochia praevenosa*), but unfortunately none were located there.



After descending into the second gully, we could see a lot of the “companion” plants associated with the Birdwing Vine; *Calamus*, *Flagellaria*, *Wilkieas* etc. and it wasn’t long before we came across some very mature vines, which will no doubt support larvae of the Richmond Birdwing later on this year.

Walking back up the track, it wasn’t long before we had returned to our starting point. We had a group lunch, before heading for home.

Speaking for everybody, I think that this was a very interesting and informative trip for anyone with even the slightest interest in nature.

Following is a list of Butterflies (E=Eggs, L=Larvae, P=Pupae, A=Adults) and Mistletoes that were observed on the day.

<u>Scientific Name</u>	<u>Common Name</u>	<u>Stage</u>
<i>Hesperilla picta</i>	Painted Sedge-skipper	L
<i>Hesperilla sarnia</i>	Swift Sedge-skipper	L
<i>Telicota anisodesma</i>	Southern Large Darter	L
<i>Euschemon rafflesia</i>	Regent Skipper	L
<i>Hasora khoda haslia</i>	Narrow-banded Awl	L
<i>Trapezites praxedes</i>	Southern Silver Ochre	L
<i>Catopsilia pomona</i>	Lemon Migrant	A
<i>Appias paulina ega</i>	Yellow Albatross	A
<i>Delias nigrina</i>	Black Jezebel	E, L, A
<i>Melanitis leda bankia</i>	Evening Brown	A
<i>Hypocysta metirius</i>	Brown Ringlet	A
<i>Danaus plexippus</i>	Monarch	A
<i>Candalides margarita</i>	Trident Pencilled-blue	A
<i>Psychonotis caelius</i>	Small Green-banded Blue	A
<i>Philiris innotatus</i>	Purple Moonbeam	P
<u>Mistletoe</u>	<u>Host</u>	
<i>Dendrophthoe vitellina</i>	<i>Eucalyptus</i> sp.	
<i>Amyema congener</i>	<i>Acacia melanoxylon</i>	
<i>Amyema conspicua</i>	<i>Alphitonia excelsa</i>	
<i>Notothixos subaureus</i>	<i>Amyema congener</i>	
<i>Viscum articulatum</i>	<i>Amyema congener</i>	

Bob Miller

MORE HOST PLANTS FOR YOU

New Host Plant for *Chaetocneme beata* (Eastern Dusk-flat, Common Red-eye)



On the 9/3/03 I noticed some chewing's on my *Toechima daemelianum*. At first I found nothing, but a closer inspection revealed part of one leaflet had been cut and pulled back over itself. Inside this little hideaway, or tent, I found a larva resting upside down on the "roof". With my limited experience I had no idea what it was. I consulted John Moss, who went straight to Braby's Butterflies of Australia, and checked the references for the Rare Red-eye and Common Red-eye. After a little deliberation it was decided I had collected a Common Red-eye (or Eastern Dusk Flat) larva.

The following week I collected two more larvae, and could make out two more "tents", higher up out of reach. The first pupated on the 15/04/03 and on the 6/5/03 a female Common Red-eye emerged. The other two larvae developed a black patch on their sides, and have since died.

Toechima daemelianum is a North Queensland tree recorded from the Cook and North Kennedy pastoral districts. I have been growing this plant in my bush garden at Sheldon in the Redlands Shire since March 1993; it has reached a height of 7m. *T. daemelianum* is a member of the SAPINDACEAE family; it has compound leaves, the leaflets of which have wavy margins. Tiny cream flowers are followed by red-orange fruits, containing shiny black seeds which are relished by the King parrots.



Top left – Larva close up
Top right – Larva
Bottom left – shelter
Photos provided by
Peter Hendry



Ed. Note – This species is polyphagous and Braby (2000) lists 15 host plants in 9 families. Our BOIC local host plant book lists 9 host plants including 2 not listed in Braby. Don Sands and Garry Sankowsky have others (pers. com.).

Peter Hendry

Butterfly host plants of Boondall Wetlands

The Boondall Wetlands is a Brisbane City Council reserve of over 1000 hectares lying on the edge of Moreton Bay. The wetlands include a variety of habitats and are renowned for the diversity of birdlife. The wetlands also provide a home for many species of butterflies.



Monkey Rope (*Parsonsia straminea*) is a large vine common on the trees around the centre. It has opposite leaves and bunches of small yellowish flowers. These flowers, though small, are a good source of nectar for many insects. Some of the local butterflies can often be seen around these flowers. It is a food plant for the caterpillars of the Common Crow butterfly. The shiny metallic chrysalis of this butterfly can sometimes be seen in the foliage.

Cressida Pipe-flower (*Aristolochia* sp D'Aguilar Range) is a small creeper that can form an extensive groundcover when not being pruned by the caterpillars of the Clearwing Swallowtail (*Cressida cressida*). The unusual flowers are followed by ribbed seed pods which release small heart shaped black seeds. The Clearwing Swallowtail lays small round orange eggs on the plant.

Billy Buttons (*Chrysocephalum apiculatum*) is a small wildflower with grayish leaves and yellow button shaped flowers. It is a host plant of the Australian Painted Lady (*Vanessa kershawii*).

Grey Mangrove (*Avicennia marina*) is one of the common mangroves of Moreton Bay. It has distinctive roots called pneumatophores which poke out of the mud. It is a host for two jewel butterflies, the Copper Jewel (*Hypochrysops apelles*) and the Mangrove Jewel (*Hypochrysops epicurus*). The caterpillars of both these butterflies are associated with small black ants which live in borer holes in the trees. Each has its own type of ant. The caterpillars' eating forms distinctive marks on the leaves.

Dodder (*Cassytha filiformis*) is an unusual twining plant. It is a parasite and attaches itself to other plants with haustoria. The caterpillars of the Small Dusky Blue (*Candalides erinus*) come out at night to feed.

River Mangrove (*Aegiceras corniculatum*) has attractive white flowers. It is a host for the White-banded Line-blue (*Nacaduba kurava*).

Red Passion vine (*Passiflora aurantia*) is a very attractive vine that is rarely seen. The large flowers start off as light pink and change to red. The fruit is eaten by blue tongue lizards when it falls to the ground and becomes soft. The caterpillars of the Glasswing butterfly feed on the leaves. If they eat all the leaves they search the ground for plants of the Spade Flower (*Hybanthus stellarioides*). This small plant has flowers with a single orange petal and is also used as a host plant.

Soap Tree (*Alphitonia excelsa*) supports many different insects one of which is the Small Green-banded Blue (*Psychonotis caelius*). The caterpillars feed on the underside of the leaves. Sometimes the caterpillars of the Indigo Flash (*Rapala varuna*) will be found feeding on the flower buds.

Tuckeroo (*Cupaniopsis anacardioides*) is tree which is popular as a street tree. It's also popular with many varieties of small blue butterflies whose caterpillars mostly feed on the flowers and buds. The Common Pencilled-blue (*Candalides absimilis*) has



a caterpillar which feeds on the fresh new shoots. The caterpillars of the Bright Cornelian (*Deudorix diovis*) are unusual because they feed on the seeds inside the fruit.

The Slender Rice Flower (*Pimelea linifolia*) is an attractive plant with white flowers. The caterpillars of the Yellow-spot Blue (*Candalides xanthospilos*) start by feeding on the flowers.

Samphire (*Sarcocornia quinqueflora*) is an unusual leafless plant which grows on the saltflats. In the past it was eaten as a salad vegetable. It is a host of the Saltpan Blue (*Theclinesstes sulphitus*).

Karamat (*Hygrophila angustifolia*) is another plant that has become uncommon but can still be seen in these wetlands. It has small purple flowers which last half a day and eventually produces distinctive clusters of seed pods. These are eaten by the caterpillars of the Tiny Grass-blue (*Zizula hylax*). Other butterflies which breed on this plant are the Meadow Argus (*Junonia villida*), Blue Argus (*Junonia orithya*) and the Chocolate Argus (*Junonia hedonia*).

Mangrove Milk Vine (*Cynachum carnosum*) is the host of the Swamp Tiger (*Danaus affinis*) and sometimes also the Lesser Wanderer (*Danaus chrysippus*). The Swamp Tiger is sometimes mistaken for a white Monarch.

The Needle-leaf Mistletoe (*Amyema cambagei*) often goes un-noticed growing on Swamp Oak (*Casuarina glauca*) the leaves of which it resembles. This mistletoe is a host for two jezebels, the Black Jezebel (*Delias nigrina*) and the Scarlet Jezebel (*Delias argenthona*). As well it is a host for the Satin Azure (*Ogyris amaryllis*) and the Purple Azure (*O. zosine*). The caterpillars of these butterflies feed at night and shelter in the nests of ants during the day.

(*Chamaecrista nomame*) grows up to a metre tall and looks like a small *Cassia*. The yellow flowers are followed by flat black seed pods which twist distinctively after opening. The form here which grows amongst Blady Grass (*Imperata cylindrica*) is taller than that which grows amongst Kangaroo Grass (*Themeda triandra*) on Mt Coot-tha. The caterpillars of the No-brand Grass-yellow (*Eurema brigitta*) feed on the leaves. Seeds of this plant germinate well after fires and this is when it is usually noticed.

The Arrowhead Violet (*Viola betonicifolia*) has almost completely disappeared from Brisbane. It is a host for the Laced Fritillary (*Argyreus hyperbius*) which is a highly endangered butterfly. It was last recorded in Queensland about ten years ago.

Many of the *Acacias*, *Lomandras* and grasses are also butterfly host plants.

Some of these plants can be difficult to spot in the wild especially if you are trying to identify them from photos in books. Come along to the club excursion and you will have most of them pointed out to you.



BYE-GONE BUTTERFLY DAYS

I recently had the good fortune to visit, with two other BOIC members, the property of Don and Marianne Franzen at Dayboro in the Samford Valley north-west of Brisbane. “Kirnicama” as it is named is a delightful Bed and Breakfast retreat on a hill with commanding views. However, it wasn’t the scenery so much that drew us to this residence, but the opportunity to view the historic Ludvig and Clarrie Franzen butterfly, moth and jewel beetle collection.

Don’s grandfather Ludvig left Sweden for Australia in about 1900 and worked mainly as a fruit and vegetable merchant in Brisbane and Chinchilla, collecting in his spare time insects from many orders. Ludvig was a foundation member of the Queensland Naturalists’ Club and published a number of articles in the “Queensland Naturalist” about his collecting activities, which included excursions to both Moreton and Stradbroke Islands. A number of specimens collected were new species – especially in the lacewing (Neuroptera) group – and were described by relevant specialists. One such description involved erecting a new genus which was named *Franzenia* in honour of the collector, who died in 1945.

Some of our readers will remember in Issue No. 16 (March 2000) of this newsletter, under “Bye-gone Butterfly Days”, I mentioned an article in the Queensland Naturalist wherein an L. Franzen collected an *Ogyris olane* (Dull-purple Azure) on Stradbroke Island in 1926. This record was significant as it threw some light on the earlier dubious record of *O. barnardi* being collected on the island as reported by R. Illidge. It appeared that *O. olane* (which today still occurs on North Stradbroke I.) was misidentified as *O. barnardi* which, at the latitude of Brisbane, only occurs as far east as its most easterly mistletoe host plant occurrence at Jondaryan (west of Toowoomba, near Oakey).

In my quest to find any other historical articles by Ludvig Franzen in the Queensland Naturalist, I came across the following article “Two Rare Butterflies” in the October 1920 issue. The first butterfly he refers to, “*Pseudodipsas digglesii*” (Diggles’ Blue), is now known scientifically as *Hypochrysops digglesii* (Silky Jewel) and the mistletoe “*Loranthus longiflorus*” has the current botanical name *Dendrophthoe vitellina*.

The good news is that both the Silky Jewel and the Silky Azure (*Ogyris oroetes*) are today still to be found in the vicinity of Toowong and Indooroopilly where Ludvig first collected them in 1920. Those who visited Ross Kendall’s Butterfly House recently (see note in last BOIC Newsletter No. 28 – March 2003) and subsequently drove to a neighbouring street will attest to the presence of a healthy *H. digglesii* colony (with attendant *Crematogaster* ants).



Ludvig's son (Don's father Clarrie) continued the insect collection on the death of his father and concentrated on butterflies, hawk moths and jewel beetles, until his own death in 1984. Don has also added to the collection which is currently housed in about 40 store boxes.

A perusal of these boxes showed specimens collected by such famous authorities as Rowland Illidge, Jack Macqueen, G.A. Waterhouse, F.P. Dodd, H. Elgner and others. Specimens include Australian Fritillary butterflies collected by Clarrie and the young Don at Indooroopilly, 50 or so years ago, when they were quite common, not far from the William Taylor Bridge over the Brisbane River. There is a single specimen of that species collected about 50 years earlier by the old Ludvig which is of historical significance and which I will leave to my colleague Murdoch de Baar to elaborate on.

The Franzens would welcome our BOIC members as their B & B guests and have assured us that a perusal of this wonderful collection will be thrown in at no added cost! I would like to take this opportunity on behalf of my two fellow members to thank Don and Marianne for their hospitality and the impromptu but sumptuous lunch they so kindly provided for us.

John Moss

Reference: Myrmecia (News Bulletin of the Australian Entomological Society Inc.)
Vol. 27, Pt.1, February 1991

Kirnicama is situated just a few minutes from Dayboro Village.

106 Woodward Road, Dayboro, Q. 4520

Ph. 07 3425 2526

Email: kirnicam@webexpress.net.au

Two Rare Butterflies by L. Franzen

(A) *Pseudodipsas digglesi* (Hew.)

On 24th August, 1920, I was out on one of my favourite hunts for larvae and pupae of butterflies, when at the foot of a small tree carrying mistletoe (*Loranthus longiflorus*) I discovered a number of larvae and pupae, both being attended by great numbers of the little black ant *Crematogaster laeviceps*.

The *Loranthus* proved beyond all doubt to be the food plant of the larvae, and until the first butterfly emerged on 13th September I was of the opinion that I had found a species of the genus *Ogyris*, with which I was not acquainted.

This (to me) new butterfly turned out to be *Pseudodipsas digglesi*, a rarity, at any rate as far as the Brisbane district is concerned. From information gained I understand that this butterfly has not been obtained here by any lepidopterist for many years past.



The larva is very similar to those of the genus *Ogyris*, being very flat in structure and dark brown in colour. Its only outstanding features are the two triangular light-coloured patches on the back, which readily separate it from any other larva I know.

The pupa is reddish brown in colour, and at first sight is easily mistaken for that of an *Ogyris*. On closer examination, it is observed to be slightly contracted behind the wing covers, giving it a pinched appearance, which at once makes it easy to determine.

The butterfly itself is too well known to lepidopterists to need describing, but I might mention that it is a typical brilliant blue Lycaenid, and a perfect gem in the cabinet.

(B) *Ogyris oroetes* Hew.

Of this butterfly I found larva and pupa, first at Woody Point, towards the end of April last, and during August at Toowong, from which I bred a few very nice specimens.

From older collectors I learn that this is the first record of this species from the Brisbane district. According to the official records by Waterhouse and Lyell, in their book, “The Butterflies of Australia,” the farthest southerly record previously known is Mackay.

ARTICLE OF INTEREST

Additional information from the Franzen Family Collection

by Murdoch De Baar & Don Franzen

We have provided below, information specific to the nymphalid butterfly: **Australian Fritillary (*Argyreus hyperbius inconstans* (Butler))**, and the lycaenid butterfly: **Sapphire Azure (*Ogyris aenone* (Waterhouse))** from label information in the Franzen Family Collection, and recollections by one of us (DF).

The Australian Fritillary has been the subject of a recovery plan program, and although Ludvig (Lou) Franzen (1879 – 1945) published many interesting articles, he did not publish his *A. hyperbius* record. Whilst Lou Franzen’s 1916 record has been previously noted, we felt the label inscription and Family recollections should be presented here. From the Franzen Collection, a female Australian Fritillary is labelled “Feb. 1916, Brisbane”, but Don remembers his father Clarrie Franzen telling him “that at the age of 7, and in the company of his father (Lou Franzen), he collected this specimen in a grassy paddock at Indooroopilly”, (Brisbane).

Ogyris aenone is a very interesting butterfly as it has a very disjunct distribution, perhaps separated by about 1200 km, occurring in moist coastal environments in the north and in dry Bulloak country in the south, and sufficient to question the species status of the populations. Braby (2000) states that the attending ants for the northern population are *Philidris cordatus*, and those for the southern population are



Anonychomyrma (itinerans group), and that the southern population is only known from Cecil Plains, Leyburn and Millmeran, but Sands & New (2002) also add Goondiwindi.

We are adding more information to these records from the Franzen Family Collection, and making a correction to a date given in De Baar (2002). Three *O. aenone* pupae were collected at Coominya (south of Esk, southeast Qld.) by Clarrie Franzen, and emerged as follows : one male 9 August 1953, one female 14 August 1953, and one male 16 August 1953. The environment is eucalypt open forest and somewhat different from the other known bulloak sites in the southeast, but perhaps there is a disjunct population of the *Anonychomyrma (itinerans group)* ants. We feel that further examination of the Coominya area and intermediate sites could be worthwhile, to see if the butterfly is still present, and what distributional pattern the ants have. Perhaps this is also a disjunct population of *O. aenone* attended by a different ant?

REFERENCES:

1. Braby, M. F. 2000. Butterflies of Australia, their identification, biology and distribution. CSIRO, Melbourne.
2. De Baar, M. 2002. Butterfly recording file. Butterfly & Other Invertebrates Club NAL # 27 : 9 – 10.
3. Sands, D.P.A. and New, T.R. 2002. The Action Plan for Australian Butterflies. Environment Australia, Canberra (Oct. 2002): 377 pp.

REQUEST

John Moss wishes to advise members that he is preparing an article, for inclusion in a forthcoming newsletter, that will focus on new butterfly (and moth) hostplant records. Members and other colleagues who have information, either published or not, and wish to include it are encouraged to contribute. Each item will be fully acknowledged to source and include previous publication details where relevant.

It is hoped that information which was unavailable for or post-dates Braby, 2000 “Butterflies of Australia, their identification, biology and distribution”, will be made available. This will include confirmation of known but doubtful records as well as information showing errors in previous records.

As it is planned to revise the club’s “Butterfly Host Plants” booklet, any new information will be included in the new edition. John would also appreciate being notified of any errors, significant exclusions and any other helpful comments pertaining to the current edition.

You can contact John directly by phone (07 3245 2997) for further details or send information via the club’s mailbox.

LETTERS



As a response to the article on mole crickets in Issue #29, Frank and I were listening out for mole crickets calling in our backyard. Fortuitously a small brown cricket found its way into the water in the base of one of Frank's pot plants. We posted it to Terry Houston. The following is his response.

Helen Schwencke

Western Australian Museum

Dept of Terrestrial Invertebrates: Entomology

Dear Helen,

Just a note to let you and Frank know what I made of the mole cricket you sent me recently. It appears to fit the *Gryllotalpa monanka* group which, according to the most recent revision (Otte & Alexander 1983), contains only two species. While the males of these two species are easily distinguished, females are indistinguishable on morphological grounds. Unfortunately, the specimen sent is a female.

From now on the weather should be gradually warming and I hope you might encourage members of your Butterfly & Other Invertebrates Club to listen out for mole crickets. Those big shiny black guys have to turn up in someone's swimming pool or pet pot plant soon! With best regards,

Terry Houston (Curator of Insects)

Dear Daphne,

I am indebted to Bob Miller for the following information on the colour of the Orchard Swallowtail pupa. In my article, in newsletter #29, about the formation of the sling supporting the pupa, I stated that the pupa turns brown. In the wild the pupa may vary in colour from bluish green to brown, with many variations in between. Green pupa are found near foliage, whilst those suspended on the branches and stems are very variable shades of green and brown.

We have raised over 200 Orchard Swallowtails and all the pupa turned brown save one which stayed green. The green one pupated after we had written the article and sent it on to you.

Bob makes another point, the butterfly may remain in the pupa stage for months depending on the conditions. We had observed this diapause with Fuscous Swallowtail pupa, but not with the Swallowtail. When one thinks about it, diapause is an essential part of survival of the butterfly over the winter. Come the spring or summer and the butterflies magically reappear.

I will be grateful if you will publish this letter in the next issue of the newsletter.

(sgd.) Hilton Selvey

AVAILABLE FROM BOIC

Grow More Butterflies –

A selection of articles published in previous Newsletters \$3.30 plus \$1.10 postage



Butterfly Gardening –

A series of articles published in previous Newsletters \$2.20 plus \$1.10 postage

Butterfly Host Plants of SE Qld. and Nth. NSW –

A comprehensive list of host plants for this region \$5.50 plus \$1.10 postage

The Butterfly Alphabet Poster which shows all the letters of the alphabet and numerals 1-9 appearing in the wings of butterflies and moths. Cost: Non-members \$25 plus \$5 postage
Members \$23 plus \$5 postage

The Domino Poster - A guide for field, school or garden with 250 Australian butterfly illustrations in colour

Cost: Non-members \$10 plus \$1.10 postage

Members \$8 plus \$1.10 postage

Poster - Lifecycles of the Swallowtail Butterflies of South East Queensland, compiled by the BOIC

Cost: Non-members \$10 plus \$5 postage

Members \$6 plus \$5 postage

These items can be obtained from BOIC, PO Box 2113, Runcorn, 4113.

Would any of these be a gift idea??

WORLD WIDE WEB SITES TO WATCH

www.saveourwaterwaysnow.com.au - SOWN (Save Our Waterways Now) is a community organisation working to restore the habitats of creeks and waterways in the catchments of Enoggera, Ithaca and Fish Creeks in Brisbane's north and west.

BACK ISSUES

Back Issues of the Club Newsletter are available at a cost of \$2 each plus postage (1-2 copies \$1.10 - 3-6 copies - \$1.50.)

OTHER GROUPS' ACTIVITIES

Eprapah Environment Centre is holding an Open Day to support the National Walk for the Bilby, the Threatened Species Project and to celebrate the 75th anniversary of Eprapah Environment Centre. Frank Manthey from QPWS will be speaking on the day and presenting a live Bilby Display.

BUTTERFLY AND OTHER INVERTEBRATES CLUB PROGRAMME

Butterfly gardening for (mainly for) beginners

When: Saturday, 13th September, 2003, 10am – 12 noon

Where: Greening Australia Nursery, Paten Rd., The Gap. (2003 UBD Map 158, B4)

What: We will be looking through a revegetation area that features a range of butterfly plants and spending time in the Greening Australia Nursery which stocks a range of these plants.

Bring: Morning tea

Contact: Helen 3844 6677 or email hschwenc@dovenetq.net.au to RSVP or for more details



Open Day at Eprapah Environment Centre (See Other Group's Activities)

When: Sunday 28th September, 2003 from 9am to 3pm
Where: Eprapah Environment Centre, Colburn Av., Victoria Point
What: Our Club is holding a stall as part of this event. Come see our displays and meet with some of our members
Contact: Daphne 07 3396 6334 or email bowden@itconnect.net.au

Dutton Park Butterfly Habitat

When: Sunday 19th October, 2003 at 3.30pm to 5.30pm (If you are coming please phone to confirm date)
Where: Dutton Park Scout Hall, Waterview St., Dutton Park. Turn into Pope St off Gladstone Rd. (2003 UBD Map 179 N3)
What: Members of our Club are involved with the local Scout group to re-vegetate a small gully with butterfly host and other native plants. A walk will be followed by a slide show of butterfly lifecycles.
Contact: Helen 3844 6677 or email hschwenc@dovenetq.net.au to RSVP or for more details

Planning and Management Meeting

What: Our planning meetings are informative and interesting. As well as planning our activities we share lots of information. All members are welcome.
When: Wednesday 12th November, 2003 at 7.30pm
Where: to be advised
Contact: Daphne 07 3396 6334 or email bowden@itconnect.net.au to RSVP or for more details

Visit to Boondall Wetlands

When: Sunday, 23rd November, 2003 from 10am to 12pm
Where: Meet at Information Centre Boondall Wetlands Reserve, UBD Ref. Map 111
What: A stroll around the main track looking at butterfly host plants
Bring: Insect repellent, sunscreen, your morning tea (and lunch if you want to stay on) and a friend
Contact: Daphne 07 3396 6334 or email bowden@itconnect.net.au to RSVP or for more details

End of Year BYO BBQ and Light-trapping

When: Saturday, 6th December, 2003 starting 3.30pm – 8.00pm
Where: Mt Coot-tha Botanic Gardens
What: A walk through the Gardens starting at the Japanese Gardens to look at Dragonflies, and moving to the native plant areas, followed by a BYO dinner and light trapping (either at the Gardens or nearby at creeks flowing off Mt. Coot-tha)



Contact: Daphne 07 3396 6334 or email bowden@itconnect.net.au to RSVP or for more details

Gold Coast members who are interested in car-pooling to any of these activities, please contact Carmon Burke on 5577 1013

If you plan to attend any of the above events please contact the person indicated in case, for some unforeseen circumstance, the event has had to be postponed or cancelled.

DISCLAIMER

The Newsletter seeks to be as scientifically accurate as possible but the views, opinions and observations expressed are those of the authors. The Newsletter is merely a platform for people to express their views and are not necessarily those of the BOIC. If inaccuracies have inadvertently occurred and are brought to our attention we will seek to correct them in future editions. The Editor reserves the right to refuse to print any matter which is unsuitable, inappropriate or objectionable and to make nomenclature changes as appropriate.

ACKNOWLEDGMENTS

Producing this newsletter is done with to the efforts of:

- Those members who have sent in letters and articles
- Lois Hughes who provides illustrations including the cover
- Daphne Bowden who works on layout, production and distribution
- John Moss for scientific referencing and proof reading
- Helen Schwencke who developed the overall design

We would like to thank all these people for their contribution

ARE YOU A MEMBER

Please check your mailing label for the date your membership is due for renewal. If your membership is due, please renew as soon as possible.

Membership fees are \$12.00 for Individuals/Schools and \$17.00 for family membership.

Would you please advise bowden@itconnect.net.au if you get/change an email address.

Butterfly and Other Invertebrates Club Inc.

c/- PO Box 2113

RUNCORN Q. 4113

**Next Meeting: Butterfly gardening for (mainly for) beginners –
Saturday, 13th September, 2003 (See Programme for details)**



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